XI

JOINT MESSAGEFORM

SECURITY [redacted]

CLASSIFICATION CHANGED TO [redacted]

SPACE BELOW RESERVED FOR COMMUNICATION CENTER [redacted]

By Authority of 205-2
Glynne M. Tilyer 4 APR 1966

1960 APR 19 00 41

PRECEDENCE	TYPE MSG (Check) BOOK	MULTI	SINGLE	ACCOUNTING SYMBOL	ORIG. OR REFERS TO	CLASSIFICATION OF REFERENCE
ACTION OPERATIONAL IMMEDIATE						
INFO OPERATIONAL IMMEDIATE						

FROM:

CHIEF, AFBMD FIELD OFFICE, VAFB, CALIF

TO: COMDR, HQ AFBMD, LOS ANGELES 45, CALIF, ATTN: WDZY

HQ 6594TH TEST WING, USAF, PALO ALTO, CALIF

LOCKHEED MISSILES & SPACE DIVISION, VAFB, CALIF (COURIER)

DOUGLAS AIRCRAFT COMPANY, VAFB, CALIF (COURIER)

INFO: 1ST MISSILE DIVISION (COMMAND POST), VAFB, CALIF (COURIER)

SPECIAL INSTRUCTIONS

Cy #10
Page #1 of 4

DOWNGRADED AT 3 YEAR INTERVALS; DECLASSIFIED AFTER 12 YEARS DOD DIRECTIVE 5200.10

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~~SECRET~~/FROM WDGEV 1-15 . LOS ANGELES FOR WDZY. LOCKHEED FOR DEPARTMENT 61-44 AND 61-70. SUBJECT: FOLLOW-ON REPORT TO FLASH REPORT OF LAUNCHING OF DISCOVERER XI (NIGHT SHIFT-PRESTO).

1055

1. PRE-LAUNCH PHASE

1.1. DISCOVERER XI COUNTDOWN WAS INITIATED AT 0400 PST ON 15 APRIL 1960. THE COUNTDOWN PROCEEDED NORMALLY FOR A LIFT-OFF AT 1230:37 PST. HIGH WINDS WITH GUSTS AT THE PAD CAUSED WORK REQUIRING THE HI-LIFT TO PROCEED SLOWER THAN NORMAL DUE TO THE EXTRAORDINARY CAUTION REQUIRED. A DIFFICULT MAST HOOK SETTING IN TASK 3 CAUSED A TEN-MINUTE DELAY. THERE WERE NO TECHNICAL HOLDS IMPOSED. THE ACID FLEX LINE FROM THE ACID TRUCK TO THE REVETMENT DEVELOPED A

DATE	TIME
18	
MONTH	YEAR
APR	1960

SYMBOL WDGEV-6

WRITER: TYPED NAME AND TITLE
For WILLIAM F. HEISLER, LT COL, USAF

PHONE 8-[redacted] PAGE 1 NR. OF PAGES 4

SECURITY CL [redacted]

SIGNATURE

TYPED NAME AND TITLE Maj. W. J. Dillon
for JOSEPH J. CODY, JR., Colonel, USAF
Chief, AFBMD Field Office

[redacted]

DD FORM 1 MAY 55 173 REPLACES DD FORM 173, 1 OCT 49, WHICH WILL BE USED UNTIL EXHAUSTED

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JOINT MESSAGEFORM - CONTINUATION SHEET

SECURITY CLA[redacted]

FROM

CHIEF, AFBMD FIELD OFFICE, VAFB, CALIF

LEAK AND WAS REPLACED. THIS REPLACEMENT CAUSED NO DELAY. AN OPERATIONAL HOLD WAS IMPOSED AT 1005 PST AT T-55 TO PERMIT TRAINS TO CLEAR THE AREA. THIS HOLD WAS IMPOSED DURING TASK 15. DURING THE HOLD, WORK ON THE PAD PROGRESSED THROUGH TASKS 15 AND 16. THE HOLD WAS RELEASED AT 1125 PST AT T-55 WITH WORK BEGINNING ON TASK 17. A SECOND OPERATIONAL HOLD FOR TRAINS WAS IMPOSED AT 11:58 PST AT T-15 WHICH WAS RELEASED AT 1215 PST. THE KEY WAS TURNED AT 1217:51. AN 18-SECOND OPERATIONAL HOLD WAS IMPOSED BETWEEN PHASE 2 AND PHASE 3 OF THE TERMINAL COUNT. THE TOTAL TERMINAL COUNTDOWN TIME WAS 12 MINUTES AND 45.73 SECONDS INCLUDING THE 18-SECOND OPERATIONAL HOLD IMPOSED BETWEEN PHASES 2 AND 3.

Cy #10

Page 2 of 4

2. EXIT PHASE

2.1. DURING THE FIRST PART OF THE LAUNCH PHASE THE SEQUENCE OF EVENTS OCCURRED AS FOLLOWS:

LIFT-OFF ------------------- 1230:36.73
MECO ----------------------- 1233:19.40
VECO ----------------------- 1233:29.32
SEPARATION ----------------- 1233:42.23
ORBITAL STAGE IGNITION ---- 1234:51.88
ORBITAL STAGE BURNOUT ----- 1236:47.17

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2.2. ALL ENGINE PARAMETERS FUNCTIONED NORMALLY. HIGH WINDS AT 70 SECONDS REQUIRED 2 DEGREES OF THOR ENGINE DEFLECTION IN PITCH TO MAINTAIN CONTROL.

2.3. COMMAND 5 (DELAY IGNITION) WAS SENT AND RECEIVED FOR A DURATION OF 1.8 SECONDS. HOWEVER, THERE WAS AN ADDITI[redacted]

[redacted]

SYMBOL	PAGE NR	NR OF PAGES	SECURITY CLA	INITIALS
WDGEV-6	2	4	[redacted]	WJI/ew

JOINT MESSAGEFORM - CONTINUATION SHEET

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FROM

CHIEF, AFBMD FIELD OFFICE, VAFB, CALIF

IN IGNITION DUE TO ACTION OF THE FAIRCHILD "H" TIME FOR 2.2 SECONDS FOR A TOTAL EFFECTIVE DELAY OF IGNITION OF 4.0 SECONDS. COMMAND 6 (REDUCTION IN VELOCITY TO BE GAINED) WAS SENT AND RECEIVED FOR A DURATION OF 14.0 SECONDS. ORBITAL STAGE SHUT-DOWN OCCURRED BY COMMAND FROM THE GUIDANCE AND CONTROL SYSTEM.

2.4. ORBITAL INJECTION VELOCITY WAS 25,770 FPS REFERRED TO THE PAD. THE O.S. INDICATED HORIZONTAL VELOCITY GAINED WAS 12,900 FPS. INJECTION ALTITUDE ALONG THE LOCAL VERTICAL WAS APPROXIMATELY 110 STATUTE MILES BASED ON THE LMSD PT MUGU POLAR RADAR DATA (PUNCHED TAPE). THE FLIGHT PATH DEPARTURE ANGLE WAS APPROXIMATELY 173.5 DEGREES BASED ON THE PT MUGU RADAR PLOT BOARD CHARTS.

2.5. THE INJECTION ANGLE WAS APPROXIMATELY 0.0 DEGREES BASED ON THE LMSD PT MUGU RADAR CHART.

3. RADAR AND TELEMETRY

3.1. GOOD TRACK WAS ACHIEVED BY THE LMSD PT MUGU RADAR FROM ACQUISITION UNTIL ABOUT T+390 SECONDS WITH FINAL LOSS OCCURRING AT T+470 SECONDS. THE LMSD VAFB RADAR HAD GOOD TRACK UNTIL T+164 SECONDS, AT WHICH TIME IT WENT PASSIVE BY A PRE-ARRANGED PROCEDURE.

3.2. TELEMETRY RECEPTION AND RECORDING WERE SATISFACTORY AT BOTH VAFB AND PT MUGU. THE DOWN RANGE T/M SHIP HAD A SIGNAL RECEPTION FOR APPROXIMATELY 430 SECONDS WHICH IS NORMAL.

4. FOLLOW-ON TO PRIMARY OBJECTIVES

4.1. ALL PRIMARY OBJECTIVES OF THE LAUNCH PHASE WERE ACHIEVED.

5. PAD DAMAGE

5.1. THIS WAS THE FIFTH LAUNCH FR[illegible]AD 5. PAD DAMAGE WAS

Cp#10

Page 3 of 4

WDLPC 60-0553

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SYMBOL	PAGE NR	NR OF PAGES	SECU	INITIALS
WDGEV-6	3	4	[redacted]	WJT/ew

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JOINT MESSAGEFORM - CONTINUATION SHEET

SECURITY CLASSIFICATION [redacted]

FROM:
CHIEF, AFBMD FIELD OFFICE, VAFB, CALIF

SLIGHT INDICATING GOOD CONTINUING RESULTS OF PAST PAD HARDENING PROCEDURES. COMPLETE PAD RECOVERY TIME IS ESTIMATED AT 4 TO 5 DAYS. LOSSES INCLUDED THE AIR-CONDITIONING DUCTS, THE MISSILE HYDRAULIC FLEX LINE ON LEG #1, AND THE MISSILE BOTTLE PRESSURIZING LINE ON LEG #2. THE ACTUATOR ROD ON LEG #2 WAS ALSO BROKEN.

Cy #10
Page 4 of 4

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